

2007 Middlesex County  
Environmental Health Assessment and Improvement Plan

Forward:

The Environmental Division (Division) of the Middlesex County Public Health Department (MCPHD) has carried, and continues to carry, one of the heaviest workloads (number of outputs) of any CEHA agency. The Division was recognized by the DEP for its Air Pollution Compliance Program (APCP) in September 2003, and for its Recycling Compliance Program in September 2004. In 2005, Richard Kozub, of the APCP, was recognized by the DEP at the best all-around Air Pollution Inspector in the State of NJ.

The Environmental Division is an integral part of the MCPHD and contributes to the overall mission of the Department. As an example, in April, the Department played a major roll in TOPOFF 3. Many members of the Division participated in the exercise.

The Division is working towards and anticipates meeting all program outputs by the end of the grant year.

Mission:

P.L. 1991, Chapter 99 declares that it is the policy of the State of New Jersey to provide for the administration of environmental health services by county departments of health consistent with performance standards promulgated by the New Jersey Department of Environmental Protection (NJDEP) at N.J.A.C. 7:1H. The environmental health services include monitoring and enforcement of environmental health standards to control air pollution, solid waste, hazardous waste, noise, pesticides, radiation, and water pollution to protect workers and the public from hazardous substances and toxic catastrophes, and to protect against other environmental threats. The Middlesex County Public Health Department (MCPHD) provides, or makes available through the Environmental Division, air pollution, solid waste, recycling, noise pollution, water pollution, septic management, and radon services on a county-wide basis. Such services will be assessed annually, at a minimum, to insure that the MCPHD priorities are aligned with those of the Department of Environmental Protection.

Authority:

The MCPHD was created, and is accordingly recognized, by the Middlesex County Board of Chosen Freeholders, to provide Public Health and Environmental Health Services to contracting municipalities.

N.J.S.A. 26:3A2-21et seq. – The County Environmental Health Act (CEHA) gives the MCPHD, as the certified local health agency for the County of Middlesex, the power and authority to enforce applicable Environmental Statutes and Administrative Codes.

N.J.A.C. 7:1H-2.1et seq. – The County Environmental Health Standards of Administrative Procedure and Performance are rules establishing standards for the administration of environmental health programs and sets performance standards for the control of environmental pollution. As the certified local health agency, the MCPHD is mandated to meet these standards.

## COUNTY-WIDE STRATEGIC ENVIRONMENTAL GOALS

**GOAL:** Clean Air

The air throughout Middlesex County will be healthful to breathe, and air pollutants will not damage our forests, land, and water bodies.

### **KEY ISSUES:**

Of the six worst pollutants that have been identified nationally, the State of New Jersey and the County of Middlesex are especially concerned about two of these pollutants; ozone and fine particulate matter. Exposure to ozone can cause coughing, chest pain and throat irritation in healthy individuals and can trigger asthmatic reactions in sensitive individuals. As airborne pollutants can originate not only outside of the County but outside of the State, it is incumbent on the MCPHD to work to reduce emissions from within the County while the NJDEP coordinates regional (other counties) activities within the State.

### INDICATORS

- ❖ The number of Ozone Action Days, when ozone exceeds health limits
- ❖ The number of permitted “B” source facilities
- ❖ The number of compliance inspections resulting in a Notice of Violation and/or Penalty Assessment
- ❖ The number of citizen complaints, by type and outcome (verified or un-verified)
- ❖ The number of verified citizen complaints resulting in a Penalty Assessment
- ❖ Trends in Toxic Release Inventory data for local emission sources for specific Air Toxics

## MILESTONES AND STRATEGIC ACTIONS

***Milestone:*** By 2007, the efforts of the MCPHD, within the County, will contribute significantly to the State meeting the Clean Air Act standards for ozone and other air pollutants.

To reach this milestone, the MCPHD has and will continue to conduct its air pollution control program according to the following performance standards:

- Control and prohibit open burning pursuant to NJAC 7:27-2; investigate and document those violations referred by the NJDEP; monitor all approved burning

permits for infested plant life, hazardous material, herbaceous plant life, orchard pruning and emergencies

- Control and prohibit smoke from combustion of fuel pursuant to NJAC 7:27-3; investigate and record all smoke violations including complaints referred to the County department or local health agency by the NJDEP. The MCPHD shall have all its field personnel and supervisors properly trained in the reading and recording of smoke density. The inspectors will respond to all local complaints, state referrals and rely on individual initiative.
- Control and prohibit solid particles from combustion of fuel pursuant to NJAC 7:27-4; investigate and record violations; furnish assistance to the NJDEP when corrective action cannot be taken by the County or local health agency.
- Prohibit air pollution, pursuant to NJAC 7:27-5; investigate complaints, furnish assistance to the NJDEP when corrective action cannot be taken by the County or local health agency.
- Control and prohibit particles or emissions of sulfur from manufacturing processes, pursuant to NJAC 7:27-6, 7:27-7, and 7:27-3; record and prosecute Ringelmann or opacity violations, refer suspect violations of the mass emission standard to the NJDEP for necessary action.
- Provide assistance to the NJDEP in the administration of NJAC 7:27-8; conduct initial investigation and follow-up inspections for the renewal of permanent certificate to operate, install, or alter any equipment or control apparatus requiring a permit and certificate.
- Control and prevention of air pollution from diesel powered motor vehicles NJAC 7:27-14.3 and control and prohibition of air pollution from gasoline-fueled motor vehicles NJAC 7:27-15.6; Division of Environmental Quality (DEQ) will refer complaints to the MCPHD for investigation. Where the determination is made that a violation exists, the MCPHD will record and issue a violation and penalty assessment, or proceed with legal action in a court of competent jurisdiction.
- Control and prohibit air pollution by volatile organic substances pursuant to NJAC 7:17-16; inventory all facilities storing volatile organic substances, record and report violations of the standards concerning the storage and transfer of volatile organic substances.
- Control and prohibit air pollution from toxic substances pursuant to NJAC 7:27-17; inspect new construction and reconstruction sites and new or altered sources for compliance; record and report violations to the NJDEP or the EPA.

- Observe and record all violations at each major stationary source as requested by the NJDEP on a case to case basis. The MCPHD will issue Notices of Violation/Penalty Assessments unless directed otherwise.
- Conduct investigations in response to citizen complaints, including those referred by the NJDEP concerning any source of air pollution. Entry onto a major source facility to investigate citizen's complaints is limited to identifying the source of the odor and the equipment associated with the odor. Other violations will be dealt with on a case to case basis.
- Conduct inspections of registered dry cleaners, gas stations, paint spray booths, and "B" sources to determine compliance with the Air Pollution Control Act NJSA 26:2C-1 et seq. and the Rules and Regulations adopted pursuant thereto, NJAC 7:27-1 et seq.
- Issue violations and penalty assessments in accordance with NJDEP policy as outlined in the New Jersey Administrative Code, Title 7, Chapter 27 and 27A. Initiate an action in the Superior Court for violations not settled in an agreeable manner. Receipts from all fees and penalties collected by the MCPHD shall be deposited into the Environmental Quality Enforcement Fund (EQEF) and shall be dedicated to funding environmental programs carried out by the MCPHD.
- Respond to all emergency situations involving threats to public health or safety occurring within the MCPHD or local health agency's jurisdiction and assist NJDEP personnel as required.
- Update emissions inventory data as required by the NJDEP.
- The MCPHD shall service high-volume sampling equipment which is part of the Air Monitoring Network of the DEQ.

**GOAL:** Clean and Plentiful Water

Middlesex County rivers, lakes, streams, and coastal waters will be fishable, suitable for active and passive recreation and support healthy eco-systems. Surface and ground water will be clean sources of water and one or the other will be available to every person in Middlesex County.

### **KEY ISSUES:**

There are areas of Middlesex County which have neither public sewers nor a public water supply system. There are areas which cannot be developed without sewers as the ground will not support a subsurface sewage disposal system.

The two major rivers in Middlesex County, the Raritan River and the South River, are tidal for their entire length within the County. The head waters of the Raritan are outside of the

County and the two daily high tides carry whatever contaminants may have come down from Newark Bay and New York Bay. Other than insuring that we do not contribute to the problem, the MCPHD has little or no control over what happens beyond our political boundaries.

Although the shore line of Raritan Bay, within Middlesex County, is not swimmable due to the drastic change between high and low tide (safety issue), the water quality does impact swimming in municipalities further down the bay.

With a good portion of Middlesex County being rural, a sizeable population is exposed to Public Non-Community water supplies (PNCs).

All of the water consumed in Middlesex County, with the exception of the relatively small portion taken from the Delaware-Raritan Canal, is ground water. Wells are subject to contamination from activities above and below the ground (underground storage tanks).

Public and private wells are subject to naturally occurring radioactive contamination.

Middlesex County is located in four watershed management areas. All of area 9 is located within and encompasses most of the County. A portion of area 7 is in the northeast part of the County. A portion of area 12 is in the southeast part of the County. A portion of area 10 is in the southwest part of the County.

#### INDICATORS:

- ❖ Number of Public Non-Community water systems, number of inspections and compliance rates, including MCL exceedances and SNCs
- ❖ Coastal Monitoring Program sample results
- ❖ Sample results from participation in the Ambient Surface Water Quality sampling program
- ❖ Number of well and sub-surface sewage disposal system installations
- ❖ Number of malfunctioning sub-surface sewage disposal systems by cause
- ❖ Number of contaminated private wells by location and type of contaminant; outcomes
- ❖ Number of ground and surface water complaints, types and outcome, point and non-point source

## MILESTONES AND STRATEGIC ACTIONS

***Milestone:*** By 2010 every resident will have a source of potable water which meets both chemical and bacteriological standards. Said source could either be a Public, Public Non-Community, or Private water supply. Also, by 2010, all stakeholders in watershed management areas will address potential supply deficits through the year 2030, to ensure that such deficits do not occur.

All of the activities of the MCPHD contribute to the realization of these two milestones. Activities geared toward protecting and ensuring a safe supply of potable water also protects and ensures the future of the watershed management area.

There are forty-six (46) active PNC water systems in the County. Of these thirty-one (31) are transient and fifteen (15) are non-transient. Although transients need only be inspected every two years and non-transient every four years, it is the policy of the MCPHD to inspect at least 50% of the PNC's water system annually.

The MCPHD, in cooperation with the NJDEP, participates in the Coastal Monitoring Program and the Ambient Surface Water Quality sampling program.

The MCPHD inspects the installation, repair and abandonment of every private well and sub-surface sewage disposal system within the County.

The goal at the MCPHD is to GPS all public water supply wells and all of the PNCs. All wells that have been sampled for radium will be GPS'd.

Several members of the MCPHD are members of the Lower Raritan Water Resources Association. This is a Board of Chosen Freeholder mandated committee which is the lead agency for all associated activities within watershed management area 9.

The MCPHD will sample a private well based on a consumer complaint and, if found contaminated, will suggest a remediation action plan.

The MCPHD assists residents in evaluating their private wells for radium contamination on a laboratory cost basis.

**GOAL:** Safe and Healthy Communities

Every Middlesex County community will be free from unacceptable human health and ecological risks due to direct exposure from hazardous substances and other potentially harmful agents.

## **KEY ISSUES:**

Middlesex County is located in the center of the State, midway between New York and Philadelphia. It is crisscrossed from north to south and east to west by major highways and

rail routes. The most eastern municipalities border on Raritan Bay and are part of the Raritan Bay estuary. The County experienced the industrial growth of the 50's and 60's and is now dealing with the aftermath as a result of no environmental safeguards in place at the time.

Middlesex County consists of twenty-five (25) municipalities with a total of: 35 high schools, 7 vo-tech high schools, 31 middle schools, 154 elementary schools, 14 special education schools, and 52 "kindergarten" schools. While our children are in school, they are potentially exposed to a myriad of chemicals in the form of cleaning supplies, insecticides, rodenticides, and actual chemicals used in science laboratories.

Middlesex County has its own landfill which, by resolution of the Board of Chosen Freeholders, only accepts waste from within the County. The landfill is free of bond debt and is sustained by the waste generated in-county.

Abandoned sites, which may or may not have been contaminated, are not tax ratables for the communities in which they are located. Without knowing the extent of possible contamination, and with the high cost of clean-up, developers are reluctant to purchase abandoned properties and return them to the tax rolls.

With the number of major transportation routes, and being a highly industrialized county, the potential always exists for a toxic release or air pollution episode as a result of a transportation or industrial accident.

Through no fault of their own, or totally unbeknown to them, residents are exposed to naturally occurring radiation and the result of the improper handling or use of pesticides.

### INDICATORS

- ❖ Number of Brownfield Sites
- ❖ Number of sites and potential sites on the National Priorities List (Superfund)
- ❖ Hazmat incidents by type, location and outcome
- ❖ Solid Waste and Recyclables by point of origin and final disposition
- ❖ Compliance rates and frequency of inspections for all solid waste and recycling facilities
- ❖ Homes tested for radon initially and those requiring confirmatory tests
- ❖ Citizen complaints resulting from the improper use of pesticides and the outcome
- ❖ Lost time by students and staff from possible or confirmed chemical exposure

### MILESTONES AND STRATEGIC ACTIONS

***Milestone:*** Each year will be marked by an increased number of Brownfield sites being remediated and returned to the tax rolls.

The Middlesex County Improvement Authority (MCIA) is the lead agency for the remediation of Brownfield sites. The MCPHD is available to the MCIA for initial identification and evaluation of potential sites.

***Milestone:*** Exposure to environmental risk will be controlled and minimized.

The MCPHD supports the Hazmat Program by funding two emergency responder positions with CEHA funds. By resolution of the Board of Chosen Freeholders, the County has a Hazmat Bill-back program in place to offset the cost of emergency responses. The MCPHD assists with the monitoring of the program and the recovery of fees.

In 1999, the Board of Chosen Freeholders adopted, by resolution, a general policy endorsing Integrated Pest Management in all county facilities and on all properties owned by the County. The resolution also established a task force to plan for the participation of all communities, through the involvement of local environmental groups and school districts within the county.

***Milestone:*** By the end of 2010, a School Chemical Storage Compliance Assistance Program inspection will be conducted in each school within the County.

Schools cannot be accessed for compliance inspections without the approval of the school district administrator. A half-day seminar will be held to introduce the districts to the voluntary program. At that time the purpose and goals will be outlined. The intent will be to start with the high schools and work down to the middle and elementary schools.

***Milestone:*** The goal, to have the accurate recording of all solid waste generated in Middlesex County by point of origin and place of final disposition was not met in 2005. Although this may be an unattainable goal, we will continue to strive to meet it.

Inspectors in the MCPHD Solid Waste Program conduct routine inspections of operating and non-operating landfills, transfer stations, recycling facilities, leaf compost sites, convenience centers, and farmland mulching operations, to monitor these sites for compliance with the appropriate regulations. Additionally, inspectors conduct investigations of odors from solid waste facilities, illegal dumping, and other complaints received from citizens or agencies. All staff have taken the "Odor Field Enforcement" course.

In 1997, regulations governing waste flow were struck down by the US Supreme Court, thus ending enforcement of these rules. Consequently, in order to monitor waste generated in Middlesex County that is transported out of county for disposal, the Middlesex County Division of Solid Waste Management, in conjunction with the Middlesex County Utilities Authority (MCUA) and the MCPHD drafted an amendment to the Middlesex County Solid Waste Management Plan. The amendment requires that all haulers report to the county, on a monthly basis, all waste tonnages transported to solid waste facilities other than the Middlesex County Landfill.



An investigation or inspection conducted by the Solid Waste Program which discloses a violation of any solid waste regulation will result in the issuance of a Notice of Violation and possibly a Penalty Assessment to the responsible party. Continued non-compliance will result in additional violations and penalties being issued under provisions set forth in the appropriate regulations. Violators may be subject to court actions in Middlesex County Superior Court. Solid Waste cases are handled by the Public Health Department's Environmental Prosecutor.

***Milestone:*** The personnel in the recycling program are continuing to conduct inspections at commercial, industrial, office, institutional and multi-family locations. These inspections emphasize education for the purpose of bringing these facilities into compliance with the recycling regulations established in the Middlesex County Solid Waste Management Plan. Inspections are conducted at approved recycling facilities for compliance with their approvals from the DEP and to insure accurate reporting of recycling tonnages to the County and participating municipalities. The MCPHD also actively seeks out facilities which are not part of the Middlesex County Solid Waste Management Plan and, accordingly, are not approved by the NJDEP.

The MCPHD continued to participate in the scrap tire program in 2005 and will continue to participate in 2006, should the need for enforcement inspections continue.

***Milestone:*** Control noise that unnecessarily degrades the quality of life, and/or affects the health and safety of the residents of Middlesex County.

The MCPHD will continue to investigate noise complaints from citizens and the DEP, and will enforce the Noise Control Regulations.

GOAL:           Open and Effective Government

The MCPHD will fulfill its mission and achieve its goals through the involvement of citizens and stakeholders as critical partners and through a commitment to quality principles and methods as a means to continuous improvement of its operations.

## **KEY ISSUES:**

Although it is the certified local health agency for the County Middlesex, the MCPHD recognizes that the five (5) non-contracting municipalities have their own health departments. As pollution and other environmental factors do not recognize political boundaries, it is imperative that there be open dialogue, coordination of efforts, and mutual support between the MCPHD and the non-contracting municipalities.

Such a relationship exists and has resulted in the MCPHD providing specific environmental services on a county-wide basis as well as technical support, to include manpower and equipment, on an "as requested" basis.

## INDICATORS

- ❖ Number of municipalities contracting with the County for environmental and/or public health services
- ❖ Non-contracting municipalities participating in, either through co-sponsorship or attendance, MCPHD training seminars
- ❖ The image of the MCPHD, real or perceived, as viewed by the municipalities and the regulated community
- ❖ Programs and services co-sponsored by the MCPHD and non-contracting municipalities

## MILESTONES AND STRATEGIC ACTIONS

***Milestone:*** The MCPHD will continue to improve on the coordination of services vital to the health of all residents of the County.